

REMARKS

Claims 1-13 are pending in the present application. By the present amendment, claims 5, 8, 9, 12, and 13 have been amended.

Rejections under 103(a):

The Examiner has rejected claims 1-9 and 11-13 under 35 U.S.C. 103(a) as being unpatentable over Goto et al. (U.S. Patent # 5,505,898) in view of Thompson et al. (U.S. Patent # 4,895,205). Additionally, claim 10 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Goto et al. in view of Thompson et al. as applied to claim 1, and further in view of Reddoch (U.S. Patent # 4,982,787) and Best (U.S. Patent # 4,798,246). These rejections are respectfully traversed.

In order to establish a prima facie case of obviousness, the Examiner has the burden of proving, by reasoning or evidence, that: 1) there is some suggestion or motivation, either in the reference itself or in the knowledge available in the art, to modify that reference's teachings; 2) there is a reasonable expectation on the part of the skilled practitioner that the modification or combination has a reasonable expectation of success; and 3) the prior art reference must teach or suggest all of the claim limitations. *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Both the teaching or suggestion and the reasonable expectation of success must be found in the prior art and not based on an applicant's disclosure. *Id.*

In carrying this burden, the Examiner "must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious." *Ex parte Clapp*, 227 USPQ 972, 973 (PTOBPAI 1985). A rejection based on §103 clearly must rest on a factual basis, and these facts must be interpreted without hindsight reconstruction of the invention from the prior art. *In re Warner*, 154 USPQ 173, 178 (CCPA 1967). The Examiner may not, because he may doubt that the invention is patentable, resort to speculation, unfounded assumptions, or hindsight reconstruction to supply deficiencies in his required factual basis. *Id.*

Referring to claim 1 of the present application, the claimed invention comprises two elements: a fusing mechanism; and a cleaning mechanism for cleaning debris from the external surface of the sections of pipe prior to fusion of the same. Goto et al. discloses a method for fusing two plastic pipes by forming a socket in the inner surface of a first pipe; *scraping the outer*

peripheral surface of an end of a pipe to be coupled by means of a scraper or the like, and inserting said scraped end into the socket; and supplying an electric current to the heat generating unit, causing the fusion of the pipes. Goto et al. repeatedly describes the need to *scrape* the outer peripheral surface of an end of a pipe (See, Col. 1, Lines 34-36 and 64-67; Col. 4, Lines 55-58; Col. 5, Lines 7-11; and Col. 6, Lines 31-35), a process constituting the removal of the outer layer or layers of the pipe and the impurities embedded therein.

Thompson et al. discloses a pipe washer and chemical applicator system for *wiping, washing and chemically treating* drill string pipe as it is tripped out of an oil well hole to remove mud from the surface of the drill pipe. The pipe washer of Thompson et al. neither includes a fusion machine, nor references the fusion of pipe. Furthermore, it does not *scrape* the peripheral surface of an end of the pipe, or any portion thereof. Therefore, there is no motivation to combine the method of fusing pipes, and the desirability to *scrape* the peripheral edge thereof, of Goto et al., with the drill pipe *wiping, washing and chemical treatment* process and device of Thompson et al. Furthermore, the combination would not serve the intended purpose of Goto et al. or result in the invention as claimed in the present application; rather, it would result in the following process: welding two pipes by forming a socket in the inner surface of a first pipe; wiping, washing and chemically treating the peripheral surface of an end of a second pipe; inserting said wiped, washed and chemically treated (but not scraped) end into the socket; and fusing the pipes. Therefore, there is not only no motivation to combine the teachings of Goto et al. with Thompson et al., but even if they were combined, they would neither serve the purpose of either patent, nor result in the invention as claimed in this application.

The examiner's rejection of claim 10 rests primarily on the above-discussed references, adding thereto the patents of Reddoch and Best. Like Thompson et al., Reddoch discloses a pipe wiper device to *clean* well strings, and for the same reasons as stated above, does not satisfy the desire to *scrape* pipe prior to welding as expressed in Goto et al., and does not provide any motivation to combine the fusion elements of Goto et al. with the cleaning devices of Thompson as modified by Reddoch. Likewise, Best, while disclosing a *scraper*, does not provide the motivation to *clean* the pipe prior to welding in accordance with Goto et al. and, furthermore, the Best device is intended to *scrape* the inside of pipes, rather than the *periphery* of pipes as suggested in Goto et al.

Thus, in view of the above remarks, one skilled in the art would not be provided with the motivation to combined the references as suggested by the Examiner and, therefore, the applicant respectfully requests that the rejections be withdrawn.

Rejections under 112:

The Examiner has rejected claims 5, 9 and 13 under 35 U.S.C. 112, second paragraph, as being unpatentable as being indefinite for failing to particularly point out and distinctly claim the subject matter that the applicant regards as the invention. In response to these rejections, claims 5, 9, and 13 have been amended in this filing.


Claim objections:

The Examiner has objected to claims 8 and 12 because the word "least" was misspelled. This error has been corrected in the claims amended hereby.

Applicant respectfully submits that the present application is in condition for allowance. The Examiner is encouraged to contact the undersigned to resolve efficiently any formal matters or to discuss any aspects of the application or of this response. Otherwise, early notification of allowable subject matter is respectfully solicited.

Respectfully submitted,

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